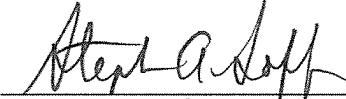


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<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number (Optional)  H0610.0351/P351	
		Application Number 10/663,647-Conf. #3795	Filed September 17, 2003
		First Named Inventor Jindrich Houzvicka et al.	
		Art Unit 1764	Examiner R. Boyer
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p>			
<p>I am the</p> <p><input type="checkbox"/> applicant /inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record.</p>		 <hr/> Signature <hr/> Stephen A. Soffen Typed or printed name	
Registration number <u>31,063</u>		<u>(202) 420-4879</u> Telephone number	
<input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____		<u>December 15, 2008</u> Date	
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.			
<input type="checkbox"/> *Total of <u>1</u> forms are submitted.			

Docket No.: H0610.0351/P351  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Jindrich Houzvicka et al.

Application No.: 10/663,647

Confirmation No.: 3795

Filed: September 17, 2003

Art Unit: 1797

For: C7+ PARAFFIN ISOMERISATION PROCESS  
AND CATALYST THEREFORE

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Examiner: R. Boyer

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

MS AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Applicants respectfully request a review of the legal and factual bases for the rejections in the above-identified patent application. Pursuant to the guidelines set forth in the Official Gazette Notice of July 12, 2005 for the Pre-Appeal Brief Conference Program, favorable reconsideration of the subject application is respectfully requested in view of the following remarks:

According to the final Office Action dated July 31, 2008 (“Final Rejection”), claims 1-5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chang (U.S. Patent No. 6,080,904) in view of Yori. Claims 1-5 are also rejected under 35 U.S.C. §103(a) as being unpatentable over Zhang in view of Yori. These rejections are respectfully traversed for at least two reasons: (i) the cited prior art references do not disclose or suggest all limitations of claims 1-5; and (ii) a person of ordinary skill in the art would not have been motivated to combine the cited prior art references, to arrive at the claimed subject matter.

**THE CITED PRIOR ART REFERENCES DO NOT DISCLOSE OR  
SUGGEST ALL LIMITATIONS OF THE CLAIMED INVENTION**

At the outset, Applicants submit that claim 1 does not recite the fully open term “comprising” but rather the narrower, closed term “consisting of” to better reflect that the four specified components (i.e., aluminum oxide, zirconium oxide, tungsten oxyanion, and platinum and/or palladium) are essential, rather than incidental. Accordingly, the subject matter of claims 1-5 contemplates embodiments with the four specified components as essential, rather than incidental, components.

Chang, Yori and Zang (considered alone or in combination) simply do not disclose or suggest all “essential” elements of claims 1-5. The cited references fail to disclose or suggest a process in which a feed stock is contacted with a catalyst composition “consisting of mixed aluminum and zirconium oxides modified with tungsten oxyanion and platinum and/or palladium,” as claim 1 recites. Chang and Zhang are silent about a catalyst composition containing aluminum. Zhang compares a tungstated zirconia catalyst promoted with platinum for use in hydroisomerization and hydrocracking of Fischer-Tropsch waxes with a sulphated zirconia platinum catalyst. The catalysts show different activities and product composition (see page 65, 3.3 in Fuel processing Technology 69 (2001)). Similar to Zhang, Chang discloses an isomerization catalyst consisting of zirconia, modified with tungstate and platinum. According to Chang, such catalyst does not need to contain any sulphate ion and is more stable than sulphated catalysts, such as a superacid sulphated catalyst (col.6, lines 28-34 of Chang).

Yori fail to supplement the deficiencies of Chang and Zhang. Yori mentions indeed platinum/alumina; however, this platinum/alumina is mixed with sulphated zirconia to form a sulphated catalyst, which is a completely different catalyst from that of the claimed invention and also from the catalysts of the above-cited prior art references (tungstated zirconia is not present). The catalyst composition of the process of the claimed invention is not sulphated. In fact, Yori *teaches away* from a catalyst composition consisting of platinum/aluminum, because the activity and selectivity of pure platinum/alumina are very low, whereas the addition of sulphated zirconia

gives a better stability and enhances the conversion of n-C<sub>4</sub> (see page 222, left column, second paragraph to right column, second paragraph, in Yori, Journal of Catalysis 153, (1995)).

The Examiner's assertion that the addition of Pt/alumina to the SO<sub>4</sub><sup>-2</sup> –ZrO<sub>2</sub> compound of Yori would have the same effect as if Pt/alumina were added to the catalyst of Chang (to provide a useful isomerisation catalyst as recited in claims 1-5) is unsupported. Again, Yori does not disclose or suggest addition of aluminum to a composition of zirconium oxide modified with tungsten oxyanion. Rather, Yori teaches addition of alumina to SO<sub>4</sub><sup>-2</sup> –ZrO<sub>2</sub>, which is a compound completely different from zirconium oxide modified with tungsten oxyanion. In addition, as "catalytic phenomena and chemical reactions are unpredictable" (*see In re Jules Mercier*, 515 F.2d 1161 (Fed. Cir. 1975)), it is neither predictable nor obvious that the addition of one metal (selected from known catalytic materials) to a different catalytic material (as asserted by the Examiner) will retain similar properties when being incorporated in the other catalytic material.

NO MOTIVATION TO COMBINE THE REFERENCES EXISTS

Applicants further submit that a person of ordinary skill in the art would not have been motivated to combine Chang with Yori and Zhang, in the manner detailed in the Final Rejection.

The Supreme Court has recently held that "[t]o determine whether there was an apparent reason to combine the known elements in the way a patent claims, it will often be necessary to look to interrelated teachings of multiple patents; to the effects of demands known to the design community or present in the marketplace; and to the background knowledge possessed by a person having ordinary skill in the art" and that "[t]o facilitate review, this analysis should be made explicit." *KSR Int'l Co. v. Teleflex Inc.*, 2007 U.S. LEXIS 4745, 9-10 (U.S. 2007). Further, it remains the policy of the United States Patent and Trademark Office that "in formulating a rejection under 35 U.S.C. 5 103(a) based upon a combination of prior art elements, it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed." *USPTO KSR Memo*, from Margaret A. Focarino, Deputy

Commissioner for Patent Operations to Technology Center Directors, May 3, 2007. The Final Rejection failed to provide such a reason.

The Examiner states that “the alumina (aluminum oxide) of Yori would be added to the catalyst compositions of Chang and Zhang (both comprising Pt and zirconium oxide) to yield a catalyst composition such as that claimed by Applicant” because “[F]rom a complete reading of Yori, it is clear that the increased conversion noted by Yori is attributable to the added aluminum oxide” (Final Rejection at 8). Applicants disagree.

First, Yori does not disclose or suggest addition of aluminum to a composition of zirconium oxide modified with tungsten oxyanion. Rather, Yori teaches addition of alumina to a sulphate compound (i.e.,  $\text{SO}_4^{2-} - \text{ZrO}_2$ ), which is a compound completely different from zirconium oxide modified with tungsten oxyanion. Thus, even if any “increased conversion noted by Yori” could be attributable to the added aluminum oxide (as the Examiner asserts), this increased conversion is irrelevant since the addition of alumina pertains to a sulphate compound, and not to a composition of zirconium oxide modified with tungsten oxyanion.

Second, Yori states that Pt/aluminum has a pure activity and selectively in the isomerisation of  $\text{C}_{4+}$  (page 222, second paragraph). Accordingly, even if a person of ordinary skill in the art would *arguendo* have been motivated to combine Yori with either Chang or Zhang, one skilled in the art would not expect an enhanced catalytic activity by adding aluminum to the catalyst of Chang or Zhang. Thus, a person of ordinary skill in the art would not have been motivated to combine the references.

Third, Applicants submit that courts have recognized that “catalytic phenomena and chemical reactions are unpredictable.” *See In re Jules Mercier*, 515 F.2d 1161 (Fed. Cir. 1975). The Federal Circuit specifically emphasized that:

The board’s approach amounts, in substance, to nothing more than a hindsight ‘reconstruction’ of the claimed invention by relying on isolated teachings of the prior art without considering the over-all context within which those teachings are presented. Without the

benefit of appellant's disclosure, a person having ordinary skill in the art would not know what portions of the disclosure of the reference to consider and what portions to disregard as irrelevant, or misleading.

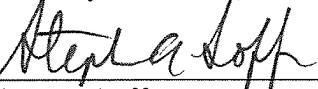
*In re Jules Mercier*, 515 F.2d 1161 (Fed. Cir. 1975)

It is neither predictable nor obvious that the addition of one metal (selected from known catalytic materials) to a different catalytic material (as asserted by the Examiner) will retain similar properties when being incorporated in the other catalytic material. No conclusion about the effect of a specific metal compound on stability, activity and selectivity of a catalyst composition can be made by simply adding the metal present in one catalyst composition to a different catalyst composition. Consequently, a person skilled in the art would not have been motivated to incorporate alumina in the platinum-based zirconium oxide catalyst.

For at least the reasons, the Final Rejection failed to establish a *prima facie* case of obviousness, and withdrawal of the rejection of claims 1-5 is respectfully solicited.

Dated: December 15, 2008

Respectfully submitted,

By   
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